

Application No. 09/899,128  
Attorney Docket No. AND01 011

### **IN THE CLAIMS**

1. (Currently Amended) A method for collecting and processing received signal level data and geolocation data over a wireless system, comprising the steps of:

gathering signal strength data corresponding to mobile units;

gathering geolocation ~~location~~ data corresponding to mobile units;

identifying the gathered location data and the gathered strength data corresponding to the same mobile units to form

~~correlating said gathered signal strength data with said gathered geolocation data to identify~~ data pairs correlating a measured signal strength at a known geolocation;

generating a set of data pairs correlating measured signal strength values to specific geographic locations throughout said wireless system.

2. (Original) The method of claim 1, wherein: said signal strength data is collected by measuring the signal strength of a signal received by a cell site, from a mobile wireless unit.

3. (Original) The method of claim 1, wherein: said signal strength data is collected by measuring the signal strength of a signal received by a wireless mobile unit, from a cell site.

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4. (Original) The method of claim 1, wherein: said geographic location data is determined by triangulation of said mobile unit with respect to a plurality of stationary cell site antennae.

5. (Original) The method of claim 1, wherein: said geographic location data is determined with reference to a set of global positioning satellites.

6. (Original) The method of claim 1, wherein: said correlation includes identification of gathered geolocation data and gathered signal strength data corresponding to the same mobile unit; and establishing the temporal correlation of said identified data to identify data pairs within sufficiently close temporal proximity to establish correlation of a measured signal strength with a measured geolocation.

7. (Original) The method of claim 1, where: said signal strength and said geolocation are gathered in real-time at a common data receiver, and said correlation includes matching said geolocation data with said signal strength data of a mobile unit based upon the receipt of data corresponding to the same mobile unit.

8. (Original) The method of claim 1, further comprising the step of: analyzing said set of data pairs to evaluate the effective RF propagation within said wireless system.

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9. (Original) The method of claim 1, further comprising the steps of:  
identifying the cell site which gathered each signal strength data measurement  
corresponding to each geolocation within the wireless system; and determining the  
identified cell site likely to receive a signal from a mobile unit at each identified  
geolocation within said wireless system.
10. (Original) The method of claim 9, further comprising the step of:  
redefining the projected distribution of likely server cell sites within said wireless system  
based upon the determination of identified likely cell sites.
11. (Original) The method of claim 1, further comprising the steps of:  
gathering drop call incident data from said system; and identifying the geolocation  
corresponding to said dropped call incidents.
12. (Original) The method of claim 11, further comprising the step of:  
generating a set of data points correlating drop call incidents with geolocation of  
occurrence.
13. (Original) The method of claim 12, further comprising the step of:  
analyzing said drop call geolocation data set to determine an effective implementation for  
addressing dropped calls.

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14. (Original) The method of claim 1, further comprising the steps of:  
gathering blocked call incident data from said system; and identifying the geolocation  
corresponding to said blocked call incidents.

15. (Original) The method of claim 14, further comprising the step of:  
generating a set of data points correlating blocked call incidents with geolocation of  
occurrence.

16. (Original) The method of claim 15, further comprising the step of:  
analyzing said blocked call geolocation data set to determine an effective implementation  
for addressing blocked calls.

17. (Original) A method for collecting and processing received signal level  
data and geolocation data over a wireless system, comprising the steps of:  
gathering signal strength data corresponding to identified mobile units;  
gathering geolocation data corresponding to identified mobile units;  
time stamping said gathered signal strength data and said gathered geolocation  
data with reference to a common reference time;  
identifying geolocation data and signal strength data corresponding to a common  
identified mobile unit and gathered within a predetermined time proximity to identify the

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geolocation of a mobile unit and the specific signal strength gathered from said mobile unit at said identified geolocation;

and generating a set of data correlating signal strength values to geographic locations with in said wireless system.

18. (Currently Amended) Apparatus for collecting and processing received signal level data and geolocation data over a wireless system, comprising:

RF signal measurement equipment for receiving signal strength data corresponding to mobile units;

geolocation equipment for determining geolocation data corresponding to mobile units;

a reference time generator for time stamping the gathered signal strength data and the gathered geolocation data with reference to a common reference time;

storage for combining said signal strength data and said geolocation data;

a processor for identifying signal strength data elements corresponding to geolocation data elements, for generating a set of data pairs correlating signal strength values to geographic locations ~~with in~~ within said wireless system corresponding to the same mobile unit.